

DRAFT
GE6NT-A

23 May 1994

GENERATOR, TWO-TONE

1. GENERAL. This procurement requires a two-tone signal source for performing intermodulation distortion tests.

2. CLASSIFICATION. Type II, Class 5, Style E and Color R in accordance with MIL-T-28800 for shipboard applications.

3. OPERATIONAL REQUIREMENTS. The equipment shall provide two frequency and amplitude independent audio tones. The tones shall be combined into a composite waveform and output through a single 600-ohm balanced interface. The minimum characteristics identified below shall apply to the individual tones.

3.1 Frequency range. 30 Hz to 200 kHz. Accuracy: ± 50 ppm. Resolution: 0.1 Hz.

3.2 Amplitude. 0 to 10 Vrms into 600 ohms. Accuracy: ± 1 dB up to 100 kHz. Flatness: ± 0.8 dB up to 100 kHz with a 1 kHz reference. Resolution: 3.5 digits.

3.3 Distortion. Total harmonic distortion + spurious: -45 dB up to 100 kHz measured within a 750 kHz bandwidth. Intermodulation distortion: -60 dB. Hum: -65 dB.

3.4 Output impedance. 600 ohms nominal.

3.5 Display. The equipment shall be provided with a LED or back-lit LCD display that provides output frequency and amplitude information for each tone with the resolutions required in 3.1 and 3.2.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Maximum power consumption: 50W.

4.2 Weight. 6 kg (13.2 lb) maximum.

4.3 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.

4.4 Remote control. The equipment shall be provided with a digital interface in accordance with MIL-T-28800.